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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,686	08/27/2001	Bernhard O. Palsson	UCSD1320-1	4327

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EXAMINER
MORAN, MARJORIE A

ART UNIT	PAPER NUMBER
1631	

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DATE MAILED: 11/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action Before the Filing of an Appeal Brief	**Application No.** 09/940,686	**Applicant(s)** PALSSON ET AL.	
	Examiner Marjorie A. Moran	**Art Unit** 1631	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 17 October 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
   a) ☒ The period for reply expires *4* months from the mailing date of the final rejection.
   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: _____.
   Claim(s) objected to: _____.
   Claim(s) rejected: *1,2,4 and 7-10*.
   Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
    see continuation sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____
13. ☐ Other: _____.

Marjorie A. Moran
11/5/05

Marjorie A. Moran
Primary Examiner
Art Unit: 1631

the examiner maintains that BERRY does teach cultivating cells under conditions which allow cells to "evolve" to a desired optimal function. Figure 3 on page 253 of BERRY teaches that under conditions of IPTG production, cells "evolve" to produce DAHP over a period of about 2-22 hours. It is noted that while some cells change (evolve) to the "desired" function, some of the cells of Figure 3 fail to change or change in a negative direction, thus indicating a "selective" response to a change in the environment, which further supports the examiner's position that BERRY's cells "evolve". The cells of BARRY comprise those which have been metabolically "engineered", are necessarily cultured prior to induction, and BERRY teaches that the "desired optimal function" is an increased rate of DAHP production (p. 254), thus the examiner maintains that BERRY at least meets the limitations of steps (e) and (f) of claim 1. In response to the argument that EDWARDS does not teach culturing a genetic makeup to evolve to a desired optimal function, applicant is reminded that the rejection is made over a combination of references wherein EDWARDS does teach calculation of optimal properties of a biochemical reaction network and suggests culturing cells while BERRY specifically teaches culture of metabolically engineered cells. In response to the argument that EDWARDS does not teach flux balance analysis (FBA), it is noted that (a) EDWARDS does specifically teach in his abstract that his method is one of FBA, and the totality of his teaching are directed to flux calculations and analysis, and (b) FBA is not an actual limitations of the claims. Claim 1 recites only calculating optimal properties of a biochemical reaction network and altering a list of reactions in the network, but does not limit the method or steps by which the calculations and alterations may be made. In response to the argument that EDWARDS "teaches away" from the claimed invention because he teaches that experimental biochemical information is not required, applicant is reminded that a teaching for a nonpreferred embodiment or for details which are not required is not the same as a teaching that an invention WILL NOT WORK under particular conditions. In fact, EDWARS specifically teaches on p. 933, left column, that his in silico prediction has been experimentally confirmed. He also teaches on page 938, left column that understanding metabolic fluxes is essential to the ability to design metabolic networks for the production of desired products, and teaches that bioinformatically based models will have a major impact on the development of metabolic engineering. As both VARNER and BERRY also teach genetic engineering, the examiner maintains that EDWARDS does NOT teach away from culturing of genetically engineered cells and that one of skill in the art would reasonably have expected success in combining these references